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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,974	02/25/2004	Daniel Davitz	36008,00.0002	4118

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CHICAGO, IL 60601

EXAMINER

MORILLO, JANEL COMBS

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,974

Applicant(s)

DAVITZ, DANIEL

Examiner

Janelle Combs-Morillo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) 9-16 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 060104.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8, drawn to an Ag alloy, classified in class 420, subclass 502.
 - II. Claims 9-13 drawn to a Cu alloy, classified in class 420, subclass 477.
 - III. Claim 14-16 are drawn to a process of casting a Ag alloy, classified in class 164, subclass various.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are independent and distinct inventions. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, said inventions have different effects- the Ag based alloys of group I has a different alloy basis than the Cu based alloys of group II. Said alloys are distinct and distinguished from each other.
3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different process such as powder metallurgy.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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5. During a telephone conversation with Robert Beiser on August 19, 2004 a provisional election was made with traverse to prosecute the invention of group I, claims 1-8. Affirmation of this election must be made by applicant in replying to this Office action. Claims withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections/Claim Interpretation

6. Claims 1-8 are objected to because of the following informalities: the instant claim language of “approximately 29.75%±5% by weight zinc”, etc. is confusing. In view of the instant specification, the examiner believes the “±5%” to mean 5% of 29.75, or 29.75±1.5, which would give a range of 28.25-31.25% Zn, as stated in the table below (rather than 29.75%±5%, which would give a range of 24.75-34.75%). When this amount is taken as 5-7.5% of the Ag alloy, it becomes apparent that the net range of Zn is 1.41-2.34%, as stated in the table below. If this is what applicant intended, the examiner suggest giving the specific range rather than referring to “±5%”. Appropriate correction is required.

	instant claim 1		net alloy		claims 4 and 7	net alloy	
	min.	max.	min.	max.		min.	max.
Ag	92.50%	95%	92.50%	95%	92.5-95%	92.50%	95%
balance an alloy comprised of:			7.50%	5%		7.50%	5%
Zn	28.25%	31.25%	1.41%	2.34%	29.75%	2.23%	1.49%
Cu	59.06%	65.25%	2.95%	4.89%	62.15%	4.66%	3.11%
Si	0.85%	1.42%	0.04%	0.11%	1.35%	0.10%	0.07%
Sn	6.75%	6.83%	0.34%	0.51%	6.75%	0.51%	0.34%

Table 1: Alloying Ranges Of Instant Claim 1

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Additionally, claims refer to both “consisting essentially of” as well as “comprising” transitional phrases. It is unclear the scope of said claim. For the purposes of this action, claims 1-8 are interpreted in the broadest scope (“comprising”). Clarification is needed.

	cl. 1	cl. 2	cl. 3	cl. 4 and 7	cl. 5	cl. 6 and 8	Eccles	Bernhard
Ag	92.5-95%	92.5-95%	92.5-95%	92.5-95%	92.5-95%	92.5-95%	preferably >92.5% Ag	89-93.5%
Balance (assumed 5-7.5%):								
Zn	1.5-2.2%	1.1-1.9%	1.5-2.6%	1.5-2.2%	1.2-1.8%	1.6-2.5%	0.05-5%	0.5-5%
Cu	3.1-4.7%	3.5-5.9%	3.1-5.1%	3.1-4.7%	3.7-5.6%	3.2-4.9%	0.5-6%	0.5-6%
Si	0.07-0.10%	0.06-0.09%	0.03-0.05%	0.07-0.10%	0.06-0.09%	0.03-0.05%	0.02-2.0%	0.02-2%
Sn	0.3-0.5%		0.01-0.02%	0.3-0.5%		0.05-0.07%	0.25-6%	0.25-6%
In			0.04-0.06%			0.06-0.09%	opt. 0.01-1.5%	0.01-1.25%
other							0.01-2.0% Ge	0.001-2% B

Table 2: Approximate Net Alloying Ranges Claims 1-8 vs. prior art

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eccles (US 6,726,877 B1) or Bernhard et al (US 5,039,479).

Eccles teaches a Silver based alloy as stated in Table 2 above, which overlaps the instant net ranges of claims 1-8. Eccles teaches said alloy preferably comprises: $\geq 92.5\%$ Ag, 2-4% Cu, 2-4% Zn, 0.25-6% Sn, 0.02-2% Si (see Eccles at claims 3, 4, 8, 10), which overlaps the presently claimed alloy composition (instant claims 1, 3, 4, 6, 7, 8).

Similarly, Bernhard teaches a Silver based alloy that overlaps the instant net alloying ranges of claims 1-8. Bernhard teaches the addition of 0.001-2% B, and Eccles teaches the addition of 0.01-2% Ge to said alloy, however, it is not clear that these additions are not excluded by the instant open claim language.

Because of the overlap in alloying ranges, it is held that Eccles or Bernhard has created a prima facie case of obviousness of the presently claimed invention.

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Conclusion


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

JCM 
August 20, 2004